

Dante™ Technology Implemented in Williams Sound Products

WHITE PAPER

General Description

Dante is an uncompressed, multi-channel digital media technology with low latency. It provides the ability to send and receive (stream) audio over a Cat5 network using standard off-the-shelf ethernet hardware. Williams Sound has implemented this technology as an option in some loop amplifiers and 72 MHz FM transmitter products. The implementation of Dante includes a hardware and software solution that allows streams of digital audio to be output to a loop or broadcast on 72 MHz FM.

How it works

Dante has been implemented by adding a 2-channel Dante digital audio circuit to some of our products. The circuit provides an additional RJ-45 “Dante” network jack (in addition to the standard “Ethernet” network jack found on these products). This additional jack allows the venue’s data network and Dante audio network to be kept separate, if desired.

When a Williams Sound Dante-enabled product and Dante source devices (supplying audio streams) are connected to a Dante network, the streams can be routed by Dante’s free “Dante Controller” software program, sent to the Williams Sound product, and played through it’s output. Since the Dante routing software has access to several streams, one Dante jack = many inputs!

At least one type of Dante audio source (such as a Dante microphone, analog to Dante converter, etc.) is required on the Dante network. The Williams Sound Dante-enabled product can receive up to 2 streams at a time – these are summed into a mono audio signal and sent to the loop outputs (A/B/Speaker) or transmitted on 72 MHz FM.

For testing purposes, the Williams Sound Dante-enabled product can be direct-connected (via the Dante jack) to a computer with Dante Controller and Dante Virtual Sound Card software programs installed. This method can be used to verify the Dante source can play through the output(s), before connecting the loop amplifier or 72 MHz FM transmitter to the venue’s larger Dante network.

Benefits

- One Cat5 cable versus many analog audio cables
- Simple install - many large venues may already have a Dante network, or at least a Cat5 cable pulled to the location where hearing assistance equipment could be installed.
- Digital audio virtually eliminates noise problems
- One jack = many inputs
- Dante has become a preferred method of audio streaming over a network because of it’s low latency and high quality
- Dante Networks do not require special network hardware (like some other audio-over-ethernet solutions). Standard ethernet networking equipment found at electronics stores worldwide can be used.
- Dante can be run on it’s own network - so IT professionals don’t have to worry about audio causing traffic issues on their data network
- Computer and Dante Controller program are only required for setup - Dante devices retain their connection settings, even when powered off